

2. Who instead of Armstrong went down the stairs?

8-10 minutes

50 years ago, cloudy footage filmed in the studio, NASA passed off as the greatest achievement of mankind - the landing of a man on the moon. During the television broadcast, the astronaut jumped off the ladder and made a "small step". And so that the viewer did not doubt that this barely distinguishable silhouette belonged to Armstrong, during the live broadcast, an inscription appeared on the muddy image **"ARMSTRONG ON MOON"**.



A still from a live broadcast, this was the image in 1969.

In fact, there was no Armstrong in the frame, the astronaut was portrayed by a completely different person, an unknown actor. We deliberately wrote "completely different", because whoever was in the frame, even in silhouette, did not look like Armstrong.

Armstrong was a tall handsome man, and the one who went down the ladder and then jumped near the lunar module was a little man. We easily calculated his real height. We even wondered why such an obvious thing that immediately catches the eye - the very small stature of an astronaut - has not been described in detail by anyone before us?

Determining the actor's height was quite easy, because there, in the frame, there is a ladder with steps, and the size of this ladder, and at the same time the step between the steps, is easy to calculate - it is enough to spend just a few minutes.

There are many photographs in the NASA archive of Apollo 11 astronauts, Armstrong and Aldrin training near the lunar module and holding the ladder with their hands in much the same way as in the historical

video. By the way, Armstrong was very tall, 180 cm. (Soviet cosmonauts were 15-20 cm lower.)



Armstrong next to the lunar module ladder during training (catalog photo number S69-32246).

First, let's determine the height of an astronaut in a spacesuit in terrestrial conditions: for this, we first add to his real height the height of the helmet above his head. The photographs show that the "helmet-aquarium" is put on so that a free space with a height of about 7-9 cm is formed above the head.



Armstrong before the start. In the helmet above the head there is a free space of 7-9 cm.

Above this "helmet-aquarium" is attached a sun filter and a protective fabric on top (not less than 3 cm additionally). Here are three photos showing the sun's filters going down:



A sun filter is mounted on top of the "helmet-aquarium".

Thus, the real height of Armstrong in a spacesuit must be at least 197 cm: his own height is 180 cm + the height of the helmet above his head and light filters (at least 12 cm) + the height of the sole of the waterproof suit with a heel (2-3 cm) + the thickness of moon galoshes (as at least another 2-3 cm).



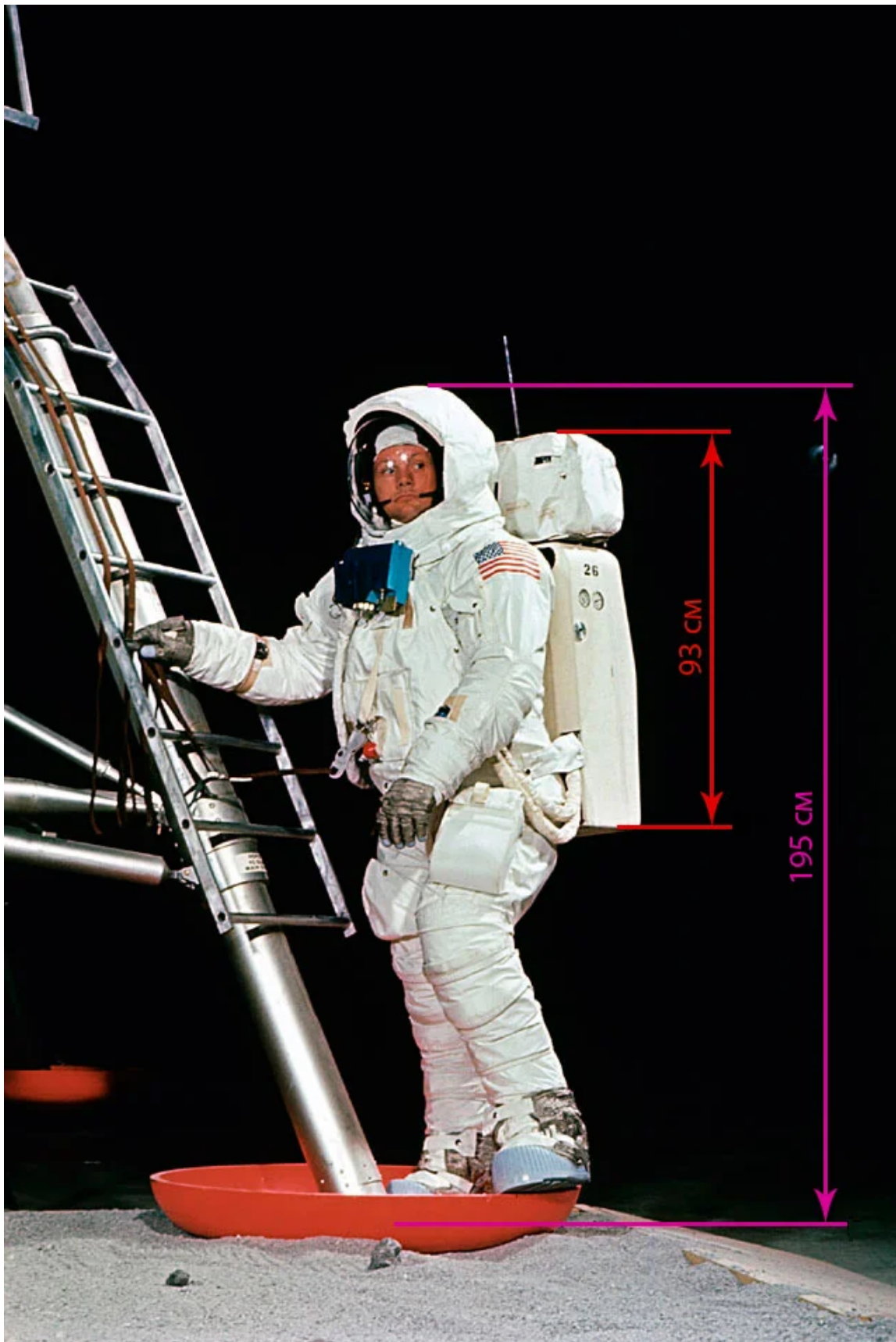
The soles of the waterproof suit



Moon galoshes.

Let's try to calculate the height of the astronaut in a different way. Behind the astronaut hangs a life support satchel (PLSS), and above it - an oxygen purge system (OPS), their dimensions are precisely known. So, [According to NASA](#), the top of the backpack is 26 cm high and the bottom 66 cm. These two

compartments do not fit snugly together, there is a gap of about 1 cm between them. The total height of the entire backpack is 93 cm. Relative to the height of this backpack, from the photo we calculate the height of Armstrong in a spacesuit. His right leg is straightened, he stands upright, and in general it turns out 195 cm. If Armstrong stands completely straight, he will be higher than 197 cm, almost 2 meters.



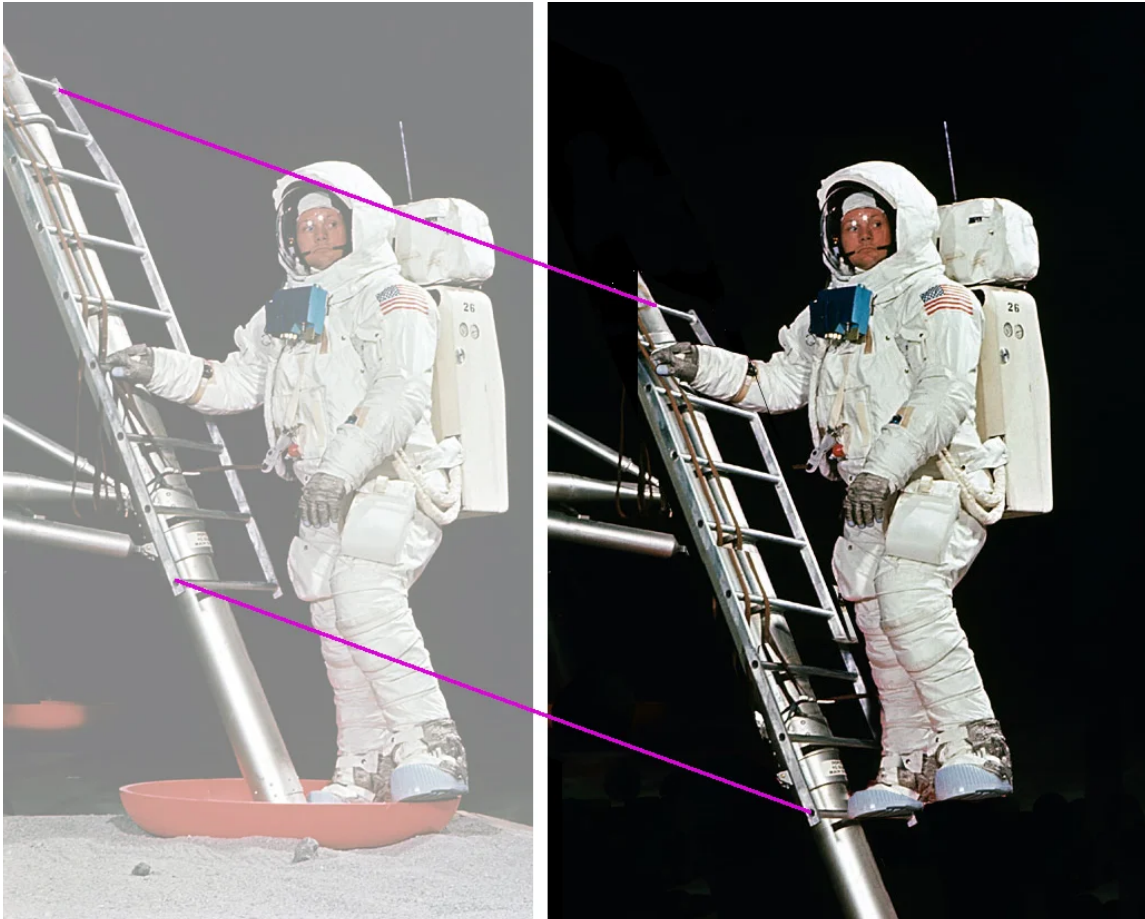
The height of the knapsack and the height of the astronaut.

The astronaut is in the same plane with the ladder, from here it is easy to determine its length and the distance between the steps. The step of the steps is 22 ± 1 cm, with the upper two steps being bent

more. Thus, the entire staircase is 1.70-1.75 meters in height. This is less than the height of an astronaut in a spacesuit.

By [according to NASA](#) , the distance between the steps was 9 inches, i.e. 22.8 cm. We will need this value a little later.

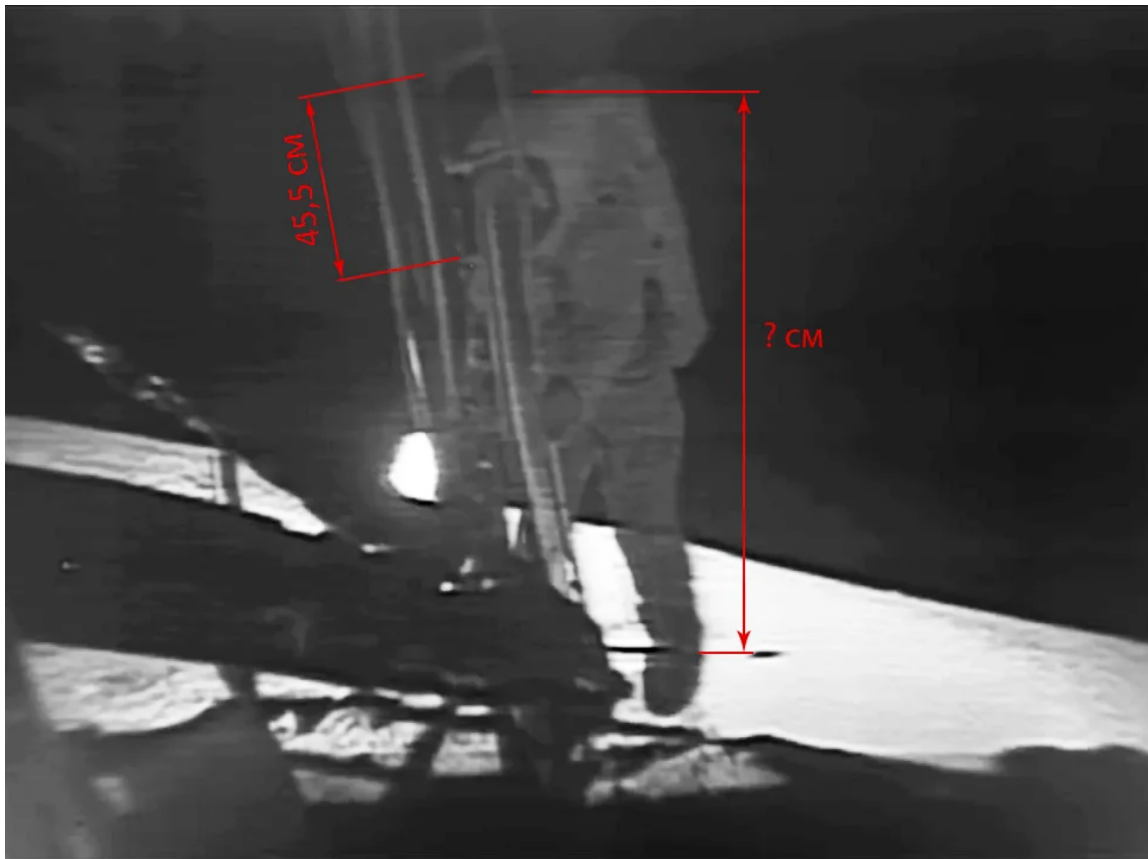
If you take a photo where Armstrong is standing at the ladder, and with the help of a graphic editor move the ladder so that the astronaut's foot is on the first, lowest step, then the topmost, 9th step, will be either at chin level or somewhere at the level of the upper shoulder. The height of an astronaut in a spacesuit is about 20-25 cm larger than the length of the ladder.



With the help of a graphic editor, the ladder was moved under Armstrong's feet.

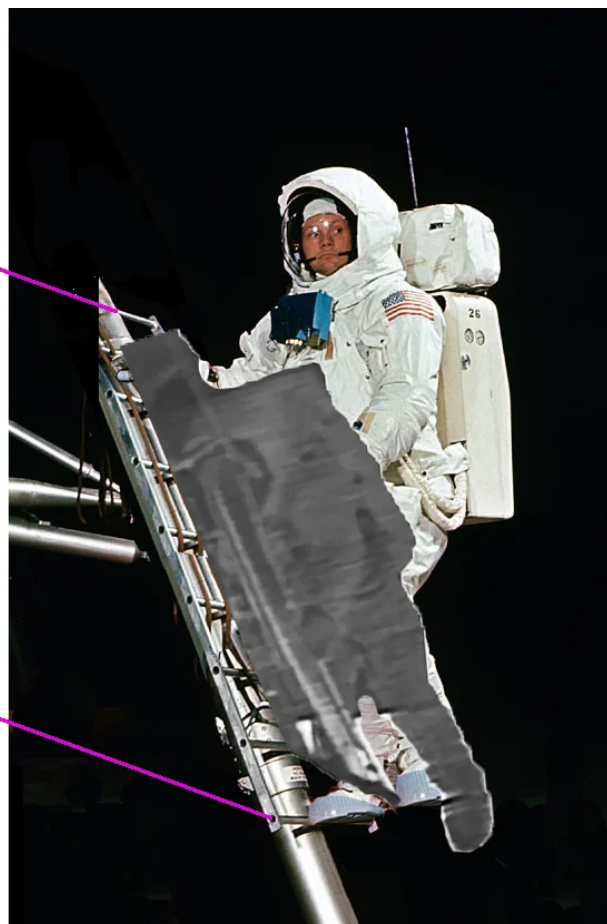
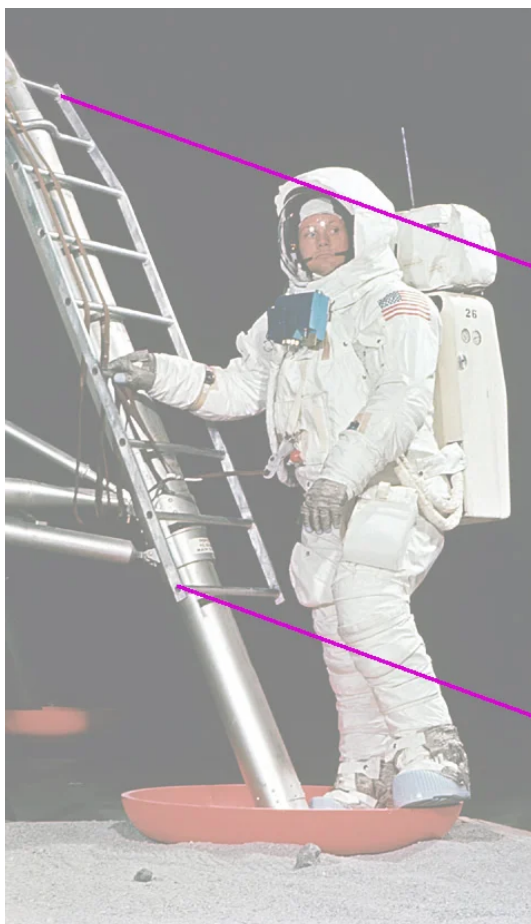
Now it remains to determine the height of the astronaut on the historical video from July 20, 1969, when the astronaut first steps on the "lunar" surface. It can be seen that the "lunar astronaut" is shorter than the length of the stairs. This is especially striking now, when the image has been "restored", i.e. added details there that were not visible before. The top of the astronaut's ("lunar" actor's) helmet is located in the middle between the 7th and 8th steps. In the case of a real Armstrong, the entire helmet would be higher than the topmost, 9th step.

In the frame, the steps are well read, the distance between them is known, from here the growth of the dwarf is easily calculated. Knowing that two spans between the steps are 45.5 cm (along a line parallel to the stairs), you can determine the height of the "lunar astronaut".



It turned out that the height from the top of the helmet to the heel is about 140 cm. This is 55 cm less than Armstrong in a spacesuit!

We have combined both photographs (terrestrial and "lunar") along a line passing through the middle of the steps of the stairs. At the same time, 5 steps and the heels of the left leg coincided.



Comparison of the height of the real Armstrong (color image) and the "lunar astronaut" (black and white image). Both astronauts are on the bottom step with their right feet. In the two pictures, at least 5 clearly distinguishable steps of the staircase are combined.

The conclusion is unambiguous: in the famous historical television frames of the "live report from the Moon" of July 20, 1969, it is not a real astronaut who descends along the ladder of the lunar module, but a dwarf wearing a reduced-size spacesuit. And here is such a miniature dwarf, whose height in a spacesuit is about 140 cm, and without a spacesuit, apparently, about 130 cm, for 50 years NASA has been passed off as Armstrong.

We admit the possibility that the astronaut's suit was not a dwarf, but just a child. This could well be, since in the cinema there have been cases when children portrayed adult astronauts. For example, in Ridley Scott's 1979 film *Alien*, there is a shot of three astronauts walking past the spacecraft's lander. Instead of adult astronauts, children were placed in the frame, so that in comparison with their height, the details of the spacecraft (the support of the *Nostromo* starship) seemed gigantic.



A still from the movie *Alien*, 1979, where adult astronauts were replaced by children.

Extract from Wikipedia:

The only part of the ship that was built in full size was the landing leg, which is shown in close-up during the landing of the Nostromo on the planet ... but to show it as quite gigantic, in the scene where Dallas, Lambert and Kane pass by the prop, three children were filmed (two of them were Scott's sons Jake and Luke) in miniature copies of their spacesuits.

So, there was no historical descent of Armstrong along the ladder to the lunar surface, and even Armstrong himself was not even in the frame of "direct reporting from the moon" at all. The entire episode was filmed in the studio with the use of props and dummy actors. The role of Armstrong was played by a dwarf whose height (about 130 cm) was 1.4 times smaller than a real astronaut (180 cm). Accordingly, a small props suit was put on the little actor.

And Armstrong's famous phrase about "a small step" in this light is no longer perceived as pride, but as sarcasm: this is one small step for a man ... **That's one small step for man ...**

* * *

Cameraman L. Konovalov was with you.



Work on the series "Always Say Always"

Until next time!